

## Earthquakes Proper Evaluation and Claim Handling

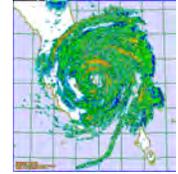
Dan Dyce, CPCU RPA

February 13, 2017

1

## Earthquakes Break Buildings

- Similar forces to hurricanes
- Similar forces to tornados
- Similar forces to flood
- Similar forces to sinkholes
- Similar forces to blasting
- Similar forces to any type of ground movement



The claim adjusters' job is determine what is covered and price the repair

2

## Safety Talk



Dyce Photo

## Earthquake Myths

- *90% of earthquake damage is hidden and can only be discovered by highly trained experts*
- Reality: WYSIWYG – Significant, legitimate earthquake damage is not subtle
- Hidden damage is rare and almost always accompanied by visible manifestation



4

## Earthquake Myths

*Earthquakes caused extensive damage to foundations and floor slabs*



Reality:

- Virtually all foundations and floor slabs are cracked before being shaken by an earthquake
- Earthquake induced cracking of concrete floor slabs and foundations is rare
- One can determine if cracks in floor slabs are recent
- How do you deal with claim of exacerbation of the width of a crack

5

## Earthquake Myths

*Epoxy is a cheap band-aid – “Bondo for buildings”*

Reality:

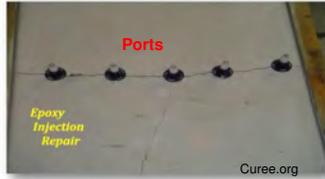
- Properly done, injection of epoxy into cracks is an effective repair method
- A floor slab or foundation repaired via epoxy injection is better than in-kind replacement



6

## When to Use Epoxy Injection

In foundations or slabs, you can repair a crack of more than 1/16 up to 1/8 inch, no offset caused by or widened by an earthquake with epoxy injection.



7

## Earthquake Claim Handling Guidelines

WWW.CUREEDOCX.ORG EDA2



Good inspection checklists, When to replace or when to repair, Lots of pictures, When to use an engineer, Sample engineering report template

www.cureedocs.org<sup>®</sup>

## CUREE – Occupant Questionnaire EDA-F1

Where description is indicated, attach additional pages of notes and photographs keyed to appropriate checklist item.

**A. GENERAL INFORMATION**

1. Property Address: \_\_\_\_\_  
 Nearest Cross Street: \_\_\_\_\_  
 City: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Occupant Name: \_\_\_\_\_  
 Email: \_\_\_\_\_ Phone: \_\_\_\_\_

**B. OBSERVATIONS**

2. Select the type of building or structure at this property. (✓ check one)

- Single Family Home or Duplex
- Apartment Building
- Office Building/School
- Mobile Home with Permanent Foundation
- Other please describe \_\_\_\_\_

3. Were you at this property when the earthquake occurred?  
 Yes

9

General  
Inspection  
Checklist  
EDA-F2

10

## Attic and Crawlspace Inspection Check Lists



...if they exist and if there is evidence of EQ damage. Use Checklist

11

**Attic Inspection Checklist**

Where description is indicated, attach additional pages of notes and photographs keyed to appropriate checklist item.

**A. GENERAL CONDITIONS**

1. Property address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 2. Property Owner's Name: \_\_\_\_\_  
 3. Date of inspection: \_\_\_\_\_  
 4. Inspector's Name: \_\_\_\_\_

**B. OBSERVATIONS**

5. Evident of attic (✓ check one)

- Flat
- Partial
- Partially
- Partially inaccessible
- Other describe \_\_\_\_\_

6. Access (adequate)

7. Attic framing

- Conventional full framed
- Multiple connected frames
- Other describe \_\_\_\_\_

8. Roof sheathing

- Splayed board sheathing
- Board sheathing
- Plywood or oriented strand board (OSB) sheathing
- Other describe \_\_\_\_\_

Attic  
Inspection  
Checklist  
EDA-F4

12

## Some Examples of Damage Found in an Attic



13

Crawlspace Inspection Checklist	
<p><b>A. GENERAL INFORMATION</b></p> <p>1. Property address: _____</p> <p>City: _____ State: _____ Zip: _____</p> <p>2. Property Owner's Name: _____</p> <p>3. Date of inspection: _____</p> <p>4. Inspector's Name: _____</p>	
<p><b>B. OBSERVATIONS</b></p> <p>5. Kind of foundation or floor slab:</p> <p><input type="checkbox"/> Full</p> <p><input type="checkbox"/> Slab</p> <p><input type="checkbox"/> Foundation</p> <p><input type="checkbox"/> Pier and beam</p> <p><input type="checkbox"/> Other (specify): _____</p> <p>6. Access (stairway): _____</p> <p>7. Existing between foundation and floor framing:</p> <p><input type="checkbox"/> None installed (in or on concrete foundation)</p> <p><input type="checkbox"/> Insulation (specify type and manufacturer)</p> <p><input type="checkbox"/> Vapor barrier</p> <p><input type="checkbox"/> Radon gas mitigation system</p> <p><input type="checkbox"/> Flood damage (specify date)</p> <p><input type="checkbox"/> Other (specify and describe damage)</p> <p>8. Moisture (specify and describe damage):</p> <p>Moist: <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Other</p> <p>Term: <input type="checkbox"/> None <input type="checkbox"/> Report <input type="checkbox"/> Record (specify type)</p> <p>Other (specify): _____</p>	

Crawlspace  
Inspection  
Checklist  
EDA-F3

## Some Examples of Damage Found in a Crawlspace



15

## CUREE Chapter 7 Fireplaces and Chimneys

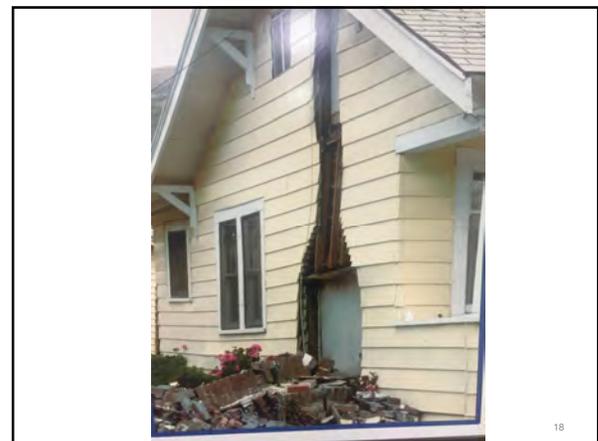
- How earthquakes damage chimneys
- Non-earthquake sources of damage to chimneys
- Chimneys that go through the roof
- Chimneys that are attached to the outside of the structure
- Masonry vs non-masonry chimneys

16

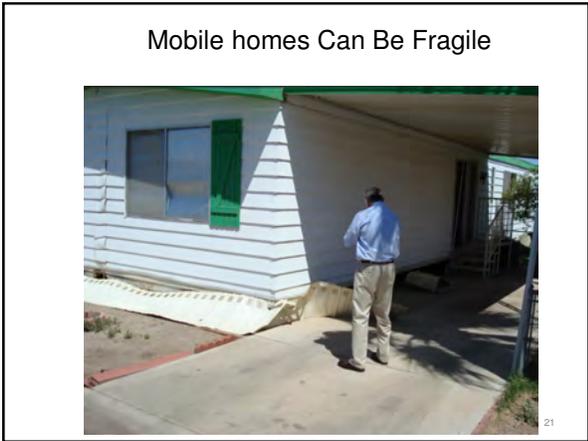
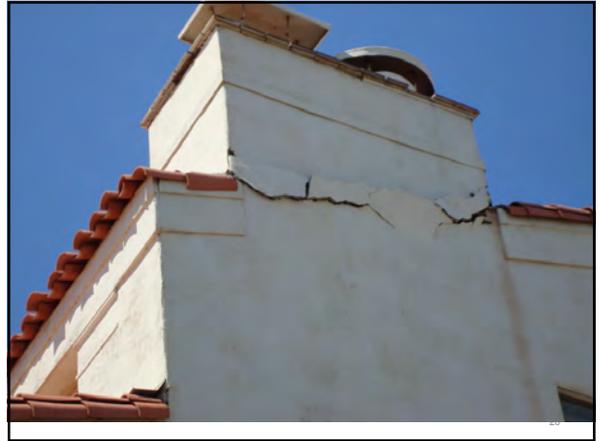
## Chimney is the Most Venerable



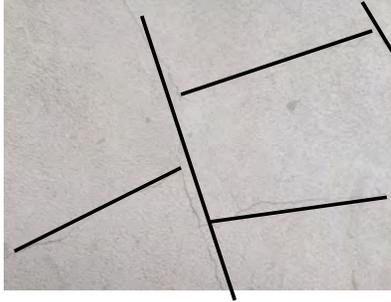
17



18



## T Cracks



25

## NATURAL FORCES CAUSE THE MAJORITY OF CRACKS

### THREE BASIC CAUSES OF CRACKS

- Differential Settlement
- Shrinkage
- Dimensional changes



### RESULTS

- Most Cracks are superficial defects, caused by Natural Forces, and generally not Earthquake Damage

## NATURAL FORCES CAUSE OF CRACKS

### Drywall Cracks

Note:

Doors & Windows are soft spots in the construction and are most vulnerable to settlements and shrinkage



## 4 Foundations and Slabs-On-Grade

### .1 Quick Guide

#### .1.1 What to Look For

- Signs of fresh cracking in, or displacement of, concrete foundations and slabs (see Section 4.7.2 for guidance on determining whether a fracture recent).
- Signs of recent sloping, sagging, settlement, or displacement of floors, patios, decks, etc.

#### .1.2 Where to Look

- The exposed surfaces of concrete footings or stem walls, to the extent that they are visible from outside the house or from inside an attached garage.
- The edge of the concrete floor slab, to the extent that it is visible from outside

## NATURAL FORCES CAUSE OF CRACKS



Dirt and efflorescence indicates age of foundation wall crack earthquake damage) [Exponent].

30

## When looking at cracks...

If it looks **old** -  
It probably is....



If it looks **fresh** -  
It probably is ....



## Characteristics of Cracks & Clues to Age

- **Sharpness of the crack edge:** Fresh cracks exhibit sharp edges free of weathering, rounding, or erosion. Note that cracks in protected locations, such as within a crawlspace or beneath a floor covering will not "weather" and may look sharp and fresh for many years. Figure 4.21 shows a fresh crack in Portland cement concrete, while Figure 4.22 shows an older crack with worn and rounded edges.
- **Relative color of crack surfaces and exposed surface of the element:** A fresh crack surface concrete will typically be a different shade than the exposed, weathered surface as shown in Figure 4.23.
- **Condition of crack surfaces:** Fresh cracks exhibit **clean fracture surface**. Older cracks may exhibit contamination with paint (Figure 4.24), oil, grease, floor covering adhesive (Figure 4.25 and Figure 4.26), sawdust, drywall joint compound (Figure 4.27), or other foreign matter that may have accumulated since the crack initially developed.
- **Grout, caulk, or other patching or repair material in the crack** as shown in Figure 4.28 through Figure 4.30.
- **Leveling material adjacent to or spanning the crack** as shown in Figure 4.31.
- **Dirt, dust, debris, or vegetation in the crack** as shown in Figure 4.32 through Figure 4.34.

Curedocs.org <sup>32</sup>

## CUREE Chapter 9 Working With Engineers

- Be clear in your assignment
  - Only have the engineer evaluate that which you cannot
- Ask them to place new earthquake damage into three categories
  - Like Kind and Quality Repairs
  - Code upgrades
  - Voluntary upgrades



## Working With Engineers



Dyce photo



36. Setting mortar that had flowed into an existing slab crack that remained bonded to the backside of a ceramic tile when the tile was removed, a clear indication that the concrete slab was cracked when the tile was installed [Exponent]. <sup>35</sup>

## Do you need an engineer?



## Chapter 9 - CUREE Guidelines

Photo Credit: Exponent



### Contents Damage After an EQ

Safety Talk

38

### Cripple Walls are Especially Vulnerable

Dyce Photo



### Consider a Cripple Wall Retrofit

<https://youtu.be/iSDwQXztTt8>

Cripple wall

## Individual Assistance Programs

U.S. Small Business Administration

**FEMA** **SBA**  
Your Small Business Resource

The policy deductible may be an uninsured loss and may be eligible for State and Federal assistance programs.

## FEMA & SBA

- FEMA gives grants homeowners of around \$30,000 after inspecting the home
- SBA gives low interest loans up to \$240,000
- Insureds may need documentation from insurance company



43

## The deductible may be an uninsured loss Coach insureds to use Disaster Recovery Centers



CEA photo

44

## 5 Things to Note in a Commercial EQ Policy

1. Definition of earthquake
2. Earthquake coverage limit per location
3. Specific earthquake deductibles
4. Definition of seismic event
5. Are man made earthquakes covered?

45

## Earthquake Exclusion on the Commercial Property Form



Under a Property Policy, Special Form Coverage Part, all causes of loss are covered except those that are excluded. Exclusion (b) on the Special Form Causes of Losses deals with Earthquake. The Earthquake Peril Exclusion encompasses: Earthquakes, Landslides, Mine Subsidence, Earth Sinking (except Sinkholes, they're covered), and Volcanoes.

## Example of Commercial Policy Showing Earth Movement Coverage.

E. **SUBLIMITS OF LIABILITY:** Sublimits of Liability stated below are subject to and not in addition to the Policy Limit shown in Paragraph D., above. These Sublimits of Liability and the specified limits of liability contained in the forms, endorsements and extensions attached, if any, are per Occurrence unless otherwise indicated.

If the words, **NOT COVERED** are shown, instead of a limit, submit amount or number of days, or if a specified amount or number of days is not shown corresponding to any coverage or Covered Cause of Loss, then no coverage is provided for that coverage or Covered Cause of Loss.

### 1. Earth Movement:

a. 1 <FILL IN> Annual Aggregate

Subject to the Annual Aggregate Limit for all Earth Movement shown in Subparagraph E.1.a. above:

b. 1 <FILL IN> Annual Aggregate for all Earth Movement in all of the following states combined: California, Alaska, Hawaii, and Puerto Rico:

c. 1 <FILL IN> Annual Aggregate for Pacific Northwest Earthquake Zone Counties (See Section VIII - Policy Definitions, Subparagraph E.1.)

d. 1 <FILL IN> Annual Aggregate for New Madrid Earthquake Zone Counties (See Section VIII - Policy Definitions, Subparagraph E.2.)

## Earthquake is Always Defined

**D. Earth Movement** which means any natural or manmade:

a. Earthquake, including any earth sinking, rising or shifting related to such event;

b. Landslide, including any earth sinking, rising or shifting related to such event;

c. Mine subsidence, meaning subsidence of a manmade mine, whether or not mining activity has ceased;

d. Earth sinking, rising or shifting, including soil conditions which cause settling, cracking or other disarrangement of foundations or other parts of real or personal property. Soil conditions include, but are not limited to, contraction, expansion, freezing, thawing, erosion, improperly compacted soil and the action of water under the ground surface; or

e. Shocks, tremors, mudslide, mud flow, rock falls, volcanic eruption, sinkhole collapse, or subsidence.

**Earth Movement** includes tsunamis.



48

## Example of how a Commercial Property Form deals with deductible

G. Deductible: Each claim for loss or damage under this Policy shall be subject to a per occurrence deductible amount of \$< FILL IN>, unless A specific deductible shown below applies:

### 2. Earth Movement:

- a. \$< FILL IN> Per Occurrence, except as follows in Subparagraph G.2.b, G.2.c., or G.2.d.;
- b. 5% of Total Insurable Values at the time of the loss at each Location involved in the loss or damage, subject to a minimum of \$250,000 any one Occurrence as respects Locations in California, Hawaii, Alaska, and Puerto Rico;
- c. XX% of Total Insurable Values at the time of the loss at each Location involved in the loss or damage, subject to a minimum of \$250,000 any one Occurrence as respects Locations in the Pacific Northwest Earthquake Zone Counties (See Section VIII - Policy Definitions, Subparagraph E.1.);
- d. XX% of Total Insurable Values at the time of the loss at each Location involved in the loss or damage, subject to a minimum of \$250,000 any one Occurrence as respects Locations in the New Madrid Earthquake Zone Counties (See Section VIII - Policy Definitions, Subparagraph E.2.)

## For Example, Earthquake is Defined as:

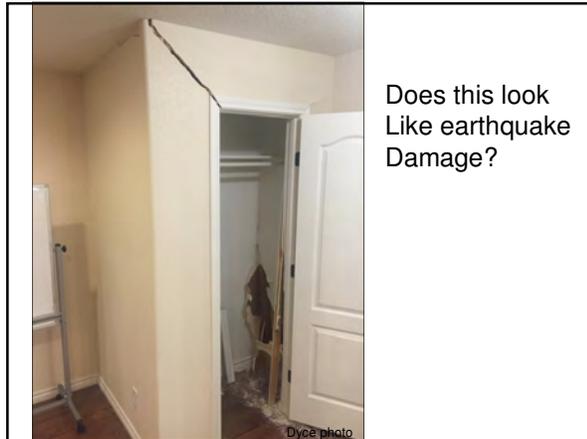
**D. Earth Movement** which means any natural or manmade:

- a. Earthquake, including any earth sinking, rising or shifting related to such event;
- b. Landslide, including any earth sinking, rising or shifting related to such event;
- c. Mine subsidence, meaning subsidence of a manmade mine, whether or not mining activity has ceased;
- d. Earth sinking, rising or shifting, including soil conditions which cause settling, cracking or other disarrangement of foundations or other parts of real or personal property. Soil conditions include, but are not limited to, contraction, expansion, freezing, thawing, erosion, improperly compacted soil and the action of water under the ground surface; or
- e. Shocks, tremors, mudslide, mud flow, rock falls, volcanic eruption, sinkhole collapse, or subsidence.

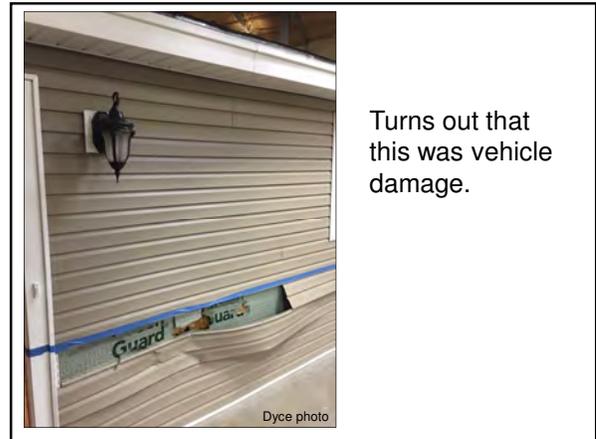


Earth Movement includes tsunami.

50



Does this look Like earthquake Damage?



Turns out that this was vehicle damage.

## If You Need a California Earthquake Claim Handling Accreditation Certificate

[www.valetrainingsolutions.com](http://www.valetrainingsolutions.com)



53

## Remember...

There is no such thing as earthquake weather...

And every day is earthquake season!™



54

### CEA Participating Insurance Companies www.earthquakeauthority.com

- |                        |                         |
|------------------------|-------------------------|
| • ACA Insurance        | • Golden Eagle          |
| • Allstate             | • Homesite              |
| • Armed Forces         | • Hyundai Marine & Fire |
| • AAA – North & South  | • Liberty Mutual        |
| • ASI                  | • MAPFRE                |
| • California Fair Plan | • Mercury               |
| • Commerce West MAPFRE | • Nationwide / Allied   |
| • Encompass            | • Progressive           |
| • Farmers Group        | • Safeco                |
| • Foremost             | • State Farm            |
|                        | • USAA                  |

The CEA does not hire adjusters  
CEA has no rate or independent adjuster fee schedule

55

### Participating Insurers Role

- Before an earthquake
  - Underwrite policy
  - Issue policy
  - Collect premiums and remit to CEA
- After an earthquake
  - Policyholder reports claim to carrier
  - Adjust claims - quick, consistent & fair
  - Disburse claims payments
  - CEA reimburses them 100% + handling fee



The CEA does not have adjusters

56

### CEA Financial Strength

- Insures 76 percent of residential earthquake policies sold in California.
- More than 920,000 policies in force.
- Rated as A- (Excellent) by A.M. Best Co.
- More than \$13 billion in claim-paying capacity



57

### The CEA Writes Three Policies

- The homeowners policy / Mobile home
- Renters policy
- Condominium unit owner – or Common Interest Development policy

Copies of policies at [www.earthquakeauthority.com](http://www.earthquakeauthority.com)

58

### CEA HO 1/2016 Policy Dec Sheet

Review the policy declarations sheet

- Dwelling limit same as companion policy A
- Code upgrade of \$10,000 or \$30,000
- Personal property \$5,000 to \$200,000
- Loss of use \$1,500 to \$100,000
- Deductible can be 5, 10, 15, 20, 25%

59

### 2016 CEA policy endorsements

- Endorsement 03A – Coverage for exterior masonry veneer
- Endorsement 04A – Coverage for Breakables



60

**The deductible is an uninsured loss !**  
 Coach insureds to use Disaster Recovery Centers



- Read the definition of replacement cost

Page 8 - #19



- No ACV holdback!

### Homeowners Cov. A

Read special limits on insurance

Page 10 #1

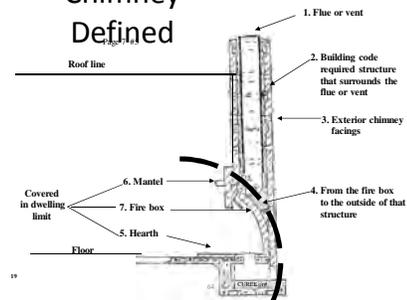
- \$10,000 most we will pay for all chimneys



Page 7 #5

Read the definition of chimney

### Chimney Defined



### Homeowners Coverage B

Extensions to dwelling / Other structures

It is covered if:

Page 10 #1

1. On the list in the policy
2. On the insured premises
3. Owned by insured
4. Affects habitability



Openbank.org

If it does not meet this criteria, it is not covered!

### Walkways, Driveways, Decks or Patios

Subject to combined single limit for A & B

Page 10 #2

2. That portion of any walkway, deck, driveway, patio necessary for pedestrian ingress or egress
  - Portion means part of – use building codes
  - Any means all
  - Pedestrian rules out vehicles
  - Goal is pedestrian passage to the street

## A & B - Property Not Covered

1. & 2. Land (10,000 for stabilization) Page 11
3. Awnings, patio covers
4. Antennas, satellite dishes, towers & brackets



67

## A & B - Property Not Covered

7. Plaster – estimated as sheetrock or drywall Page 11 #7



68

## Homeowners Coverage C Property Not Covered

Page 13

- Personal property not covered:
- 1-6 Pets, vehicles, valuable papers
  7. Artwork, sculpture, photos, tapestries, pottery, ceramics
  8. Breakable items like glassware, crystal, china, ceramic, pottery, figurines, glass marble... Page 14

69

## HO Coverage D - ALE

Page 14

- Loss of use / additional living expense
  - Never has a deductible
  - Base limit of \$1,500 up to \$100,000
  - Must be incurred –
- Fair rental value
- Will pay if civil authority keeps you out



70

## Homeowners Other Coverages

1. Emergency repairs - sublimit is 5% of A  
Can pay up to \$1,500 before deductible met
2. Debris removal - will pay up to 5% of A as additional insurance
3. \$10, \$20, or \$30,000 for building code upgrades
  - Additional insurance
  - For codes in effect on the date of the earthquake

71

## Energy Efficiency... upgrades



- Energy star replacement
- Environmental safety upgrades
- Interior finish materials upgrades
- Elimination of ozone-depleting substances
- Flush out of reconstructed space

*Up to \$25,000 additional, subject to policy limit.  
Limited to 200% of original cost.  
Must actually undertake to repair or replace.*

72

## Losses Not Covered – Earth Movement

Fig 18 #5

5. Earth movement must be caused by earthquake and must show up within one year



73

## CEA Homeowners Choice Policy

- Coverage A and Coverage B are required
  - Has 5% to 25% deductible
- Coverage C - Personal Property is optional
  - Has its own 5% to 25% deductible
  - Deductible will be waived if covered damage to Coverage A and B meets or exceeds dwelling deductible
- Coverage D – Loss of Use is optional, no deductible



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74